

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
13 February 2003 (13.02.2003)

PCT

(10) International Publication Number
WO 03/013047 A3

(51) International Patent Classification⁷: H04L 1/18, 1/16

(21) International Application Number: PCT/US02/20546

(22) International Filing Date: 28 June 2002 (28.06.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/916,564 27 July 2001 (27.07.2001) US

(71) Applicant: MOTOROLA, INC. [US/US]; 1303 East Algonquin Road, Schaumburg, IL 60196 (US).

(72) Inventors: PROCTOR, Lee, Michael; 6512 Wildberry Lane, Cary, IL 60013 (US). HETHERINGTON, Mark; 1701 Kensington Lane, Crystal Lake, IL 60014 (US).

(74) Agents: WILLIAMS, Lalita, P. et al.; Motorola, Inc., Intellectual Property Dept., 1303 East Algonquin Road, Schaumburg, IL 60196 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.

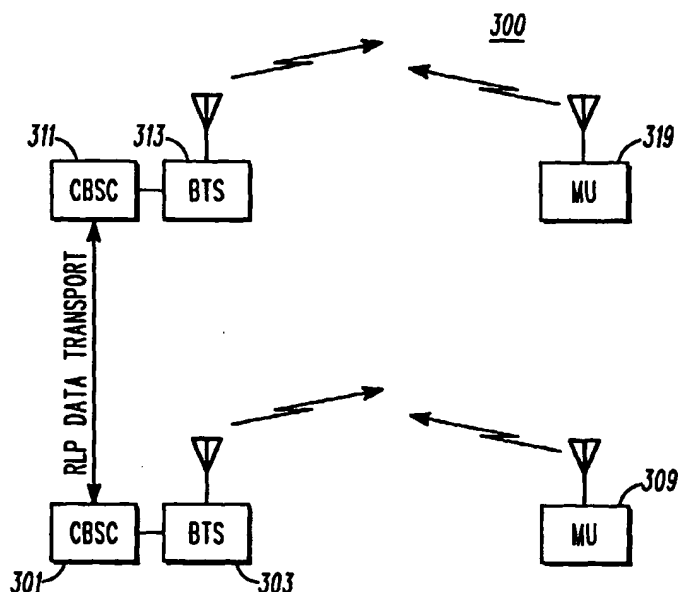
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

(88) Date of publication of the international search report:
30 May 2003

[Continued on next page]

(54) Title: TRANSMISSION SCHEME WITHIN A COMMUNICATION SYSTEM



(57) Abstract: To address the need for dispatch in a CDMA communication system, each mobile unit (309, 319) and CBSC (301, 311) involved in a call are allowed to establish an independent RLP session between them. Each session contains its own unique RLP sequence numbers that are not shared. Reverse link sequence numbers are passed from the source CBSC (301, 311) (serving the "talking" mobile) to the target CBSC(s) (301, 311) (serving the "listening" mobiles). However, instead of being directly used by the target CBSC(s) (301, 311) for its forward link RLP sequence number, the sequence numbers passed to the CBSC (301, 311) is translated to the existing target CBSCs (301, 311) current RLP sequence numbers.

WO 03/013047 A3



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No
PCT US/ 02 20546A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L1/18 H04L1/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 169 732 B1 (HETHERINGTON MARK ET AL) 2 January 2001 (2001-01-02) cited in the application the whole document ---	1-3,9,10
A	CHIM V ET AL: "End-to-end acknowledgments for indirect TCP over wireless internetworks" COMMUNICATIONS, COMPUTERS AND SIGNAL PROCESSING, 1997. 10 YEARS PACRIM 1987-1997 - NETWORKING THE PACIFIC RIM. 1997 IEEE PACIFIC RIM CONFERENCE ON VICTORIA, BC, CANADA 20-22 AUG. 1997, NEW YORK, NY, USA, IEEE, US, 20 August 1997 (1997-08-20), pages 774-777, XP010245087 ISBN: 0-7803-3905-3 the whole document --- -/--	1-3,9,10

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

22 November 2002

Date of mailing of the international search report

05/12/2002

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Toumpoulidis, T

INTERNATIONAL SEARCH REPORT

International Application No
PCT US/ 02 20546

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 866 579 A (NIPPON ELECTRIC CO) 23 September 1998 (1998-09-23) abstract -----	1-3,9,10

INTERNATIONAL SEARCH REPORT

International Application No
PCT US/ 02 20546

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 4-10
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210

Continuation of Box I.2

Claims Nos.: 4-10

In view of the wording of independent claims 1,4,6 presently on file, which render it difficult, if not impossible, to determine the matter for which protection is sought, the present application fails to comply with the clarity and conciseness requirements of Article 6 PCT (see also Rule 6.1(a) PCT) to such an extent that a meaningful search is impossible. Furthermore, independent claims 1,6,9 relate to an extremely large number of possible methods and apparatus respectively. In fact, the claims contain so many options, variables, possible permutations and provisos that a lack of clarity within the meaning of Article 6 PCT arises to such an extent as to render a meaningful search of the claims impossible. Consequently, the search has been carried out for those parts of the application which do appear to be clear (and concise), namely subject-matter associated to the claims 1-3, 9,10 which relate to a method/apparatus for data transmission by utilising sequence number translation in repetition protocols.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

International Application No
PCT US/ 02 20546

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 6169732	B1	02-01-2001	EP WO	1197022 A1 0101619 A1	17-04-2002 04-01-2001
EP 0866579	A	23-09-1998	EP	0866579 A1	23-09-1998